

WHAT IS CLAIMED IS:

1. A method for dyeing a human keratin material with a lightening effect comprising applying to the human keratin material a composition comprising, in a cosmetically acceptable medium, at least one fluorescent dye that is soluble in the medium and at least one surfactant chosen from:

amphoteric surfactants chosen from betaines and imidazolium derivatives, and nonionic surfactants chosen from alkylpyrrolidones, oxyalkylenated fatty alcohol ethers, glycerolated fatty alcohol ethers, fatty acid esters of oxyalkylenated monoalcohols, fatty acid esters of glycerolated monoalcohols, fatty acid esters of optionally oxyalkylenated polyols, and fatty acid esters of optionally glycerolated polyols.

2. The method of Claim 1, wherein the human keratin materials are artificially dyed or pigmented keratin fibers.

3. The method of Claim 1, wherein the said human keratin materials have a tone height of less than or equal to 6.

4. The method of Claim 3, wherein the said human keratin materials have a tone height of less than or equal to 4.

5. The method of Claim 1, wherein said lightening effect is of at least 0.5 tone.

6. The method of Claim 1, wherein said human keratin material is dark skin.

7. The method of Claim 1, wherein the amphoteric surfactants are chosen from betaines chosen from (C₈-C₂₀)alkylbetaines, (C₈-C₂₀)alkylamido(C₁-C₈)alkylbetaines, (C₈-C₂₀)alkylamido(C₁-C₈)alkylsulphobetaines and sulphobetaines.

8. The method of Claim 1, wherein the imidazolium derivatives are chosen from at least one of amphocarboxyglycinates and amphocarboxypropionates.

9. The method of Claim 1, wherein the alkylpyrrolidones are (C₁-C₃₀)alkylpyrrolidones.

10. The method of Claim 1, wherein the oxyalkylenated and glycerolated fatty alcohol ethers are chosen from linear and branched, saturated and unsaturated, ethoxylated, propoxylated, and glycerolated, optionally hydroxylated fatty alcohols with a chain comprising from 8 to 30 carbon atoms.

11. The method of Claim 1 wherein the fatty acid esters of oxyalkylenated and of glycerolated monoalcohols are chosen from esters of linear and branched, saturated and unsaturated carboxylic acids with a fatty chain comprising from 8 to 30 carbon atoms, and from at least one ester chosen from esters of linear and branched, saturated and unsaturated, ethoxylated, propoxylated and glycerolated monoalcohols with a fatty chain comprising from 8 to 30 carbon atoms.

12. The method of Claim 1, wherein the oxyalkylenated and glycerolated polyols are chosen from at least one of glycerol, sorbitol, glucose, methylglucose, sorbitol anhydride, polyethylene glycols, and polypropylene glycols.

13. The method of Claim 1, wherein the at least one surfactant is present in the composition in an amount ranging from 0.01% to 30% by weight, relative to the total weight of the composition.

14. The method of Claim 13, wherein the at least one surfactant is present in the composition in an amount ranging from 0.1% to 20% by weight, relative to the total weight of the composition.

15. The method of Claim 14, wherein the at least one surfactant is present in the composition in an amount ranging from 0.2% to 10% by weight relative to the total weight of the composition.

16. The method of Claim 1, wherein the at least one fluorescent dye is soluble in the cosmetically acceptable medium to a concentration of at least 0.001 g/l, at a temperature ranging from 15 to 25°C.

17. The method of Claim 16, wherein the at least one fluorescent dye is soluble in the cosmetically acceptable medium to a concentration of at least 0.5 g/l, at a temperature ranging from 15 to 25°C.

18. The method of Claim 17, wherein the at least one fluorescent dye is soluble in the cosmetically acceptable medium to a concentration of at least 1 g/l, at a temperature ranging from 15 to 25°C.

19. The method of Claim 18, wherein the at least one fluorescent dye is soluble in the cosmetically acceptable medium to a concentration of at least 5 g/l, at a temperature ranging from 15 to 25°C.

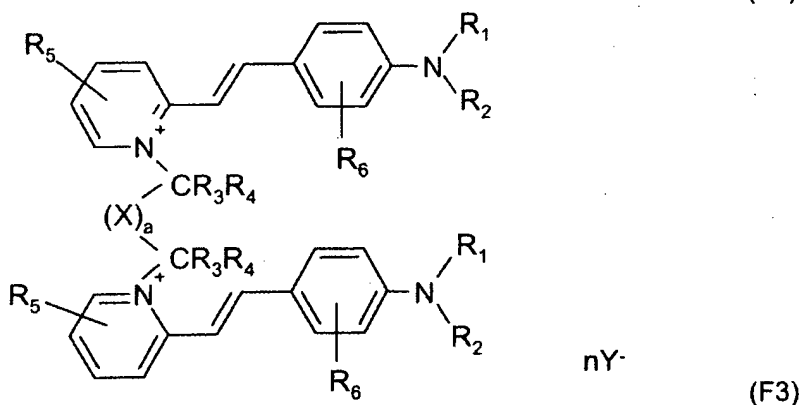
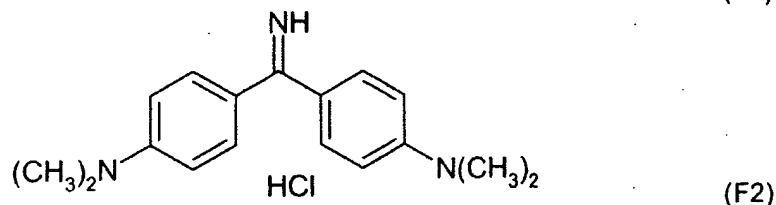
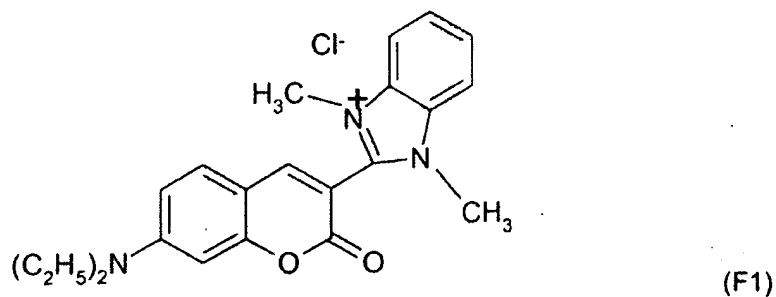
20. The method of Claim 19, wherein the at least one fluorescent dye is a dye in the orange range.

21. The method of Claim 1, wherein the at least one fluorescent dye provides a reflectance maximum that is in the wavelength range from 500 to 650 nanometers.

22. The method of Claim 21, wherein the at least one fluorescent dye provides a reflectance maximum that is in the wavelength range from 550 to 620 nanometers.

23. The method of Claim 1, wherein the at least one fluorescent dye is chosen from the fluorescent dyes belonging to the following families: naphthalimides; cationic coumarins; non-cationic coumarins; xanthenodiquinolizines; azaxanthenes; naphtholactams; azlactones; oxazines; thiazines; dioxazines; azo, azomethine and methine monocationic fluorescent dyes; and azo, azomethine and methine polycationic fluorescent dyes.

24. The method of Claim 1, wherein the at least one fluorescent dye is chosen from groups formed by dyes comprising the following structures:



wherein:

R_1 and R_2 , which may be identical or different, are chosen from:

- a hydrogen atom;
- linear and branched alkyl radicals comprising 1 to 10 carbon atoms, optionally interrupted and/or substituted with at least one entity chosen from hetero atoms and groups comprising at least one hetero atom and optionally substituted with at least one halogen atom;
- aryl and arylalkyl radicals, wherein the aryl group comprises 6 carbon atoms and the alkyl group comprises from 1 to 4 carbon atoms; and wherein the aryl

group is optionally substituted with at least one alkyl radical chosen from linear and branched alkyl radicals comprising from 1 to 4 carbon atoms, wherein the at least one alkyl radical is optionally interrupted and/or substituted with at least one entity chosen from hetero atoms and groups comprising at least one hetero atom and is optionally substituted with at least one halogen atom;

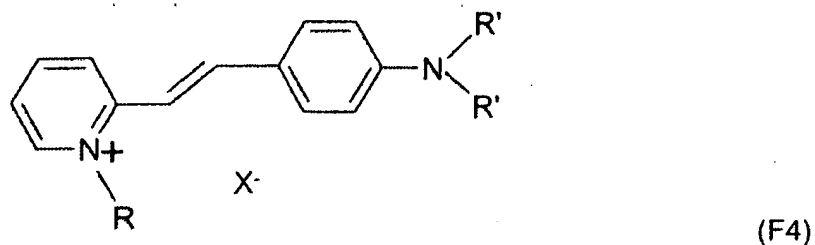
- R_1 and R_2 may optionally form, together with the nitrogen atom to which they are attached, at least one heterocycle and may comprise at least one other hetero atom, wherein the heterocycle is optionally substituted with at least one alkyl radical chosen from linear and branched alkyl radicals, wherein the at least one alkyl radical is optionally interrupted and/or substituted with at least one entity chosen from hetero atoms and groups comprising at least one hetero atom and is optionally substituted with at least one halogen atom; and
 - R_1 or R_2 may optionally form, together with the nitrogen to which they are attached and one of the carbon atoms of the phenyl group bearing the nitrogen atom, at least one heterocycle;
- R_3 and R_4 , which may be identical or different, are each chosen from a hydrogen atom and alkyl radicals comprising from 1 to 4 carbon atoms;
- R_5 , which may be identical or different, is chosen from a hydrogen atom, a halogen atom and linear and branched alkyl radicals comprising from 1 to 4 carbon atoms, optionally interrupted with at least one hetero atom;
- R_6 , which may be identical or different, is chosen from a hydrogen atom; a halogen atom; linear and branched alkyl radicals comprising from 1 to 4 carbon atoms, wherein the alkyl radicals are optionally substituted and/or interrupted with at least one entity chosen from

hetero atoms and groups bearing at least one hetero atom and are optionally substituted with at least one halogen atom;

- X is chosen from:

- linear and branched alkyl radicals comprising from 1 to 14 carbon atoms and alkenyl radicals comprising from 2 to 14 carbon atoms, wherein the alkyl radicals and alkenyl radicals are optionally interrupted and/or substituted with at least one entity chosen from hetero atoms and groups comprising at least one hetero atom and are optionally substituted with at least one halogen atom;
- 5- or 6-membered heterocyclic radicals optionally substituted with at least one of:
 - linear and branched alkyl radicals comprising from 1 to 14 carbon atoms, wherein the at least one alkyl radicals are optionally substituted with at least one entity chosen from hetero atoms;
 - linear and branched aminoalkyl radicals comprising from 1 to 4 carbon atoms, optionally substituted with at least one hetero atom; and
 - halogen atoms;
- fused and non-fused aromatic and diaromatic radicals, optionally separated with an alkyl radical comprising from 1 to 4 carbon atoms, wherein the aromatic and diaromatic radicals are optionally substituted with at least one entity chosen from halogen atoms and alkyl radicals comprising from 1 to 10 carbon atoms, said alkyl radicals being optionally substituted and/or interrupted with at least one entity chosen from hetero atoms and groups bearing at least one hetero atom;

- a dicarbonyl radical; and
 - the group X possibly bearing at least one cationic charges;
- a being equal to 0 or 1;
- Y⁻, which may be identical or different, is chosen from organic and mineral anions; and
- n is an integer at least equal to 2 and at most equal to the number of cationic charges present in the at least one fluorescent compound;



wherein R is chosen from methyl and ethyl radicals; R' is chosen from methyl radicals and X⁻ is an anion.

25. The method of claim 24, wherein X⁻ in formula (F4) is chosen from chloride, iodide, sulphate, methasulphate, acetate, and perchlorate anions.
26. The method of Claim 24, wherein R₁ and R₂, which may be identical or different, are each chosen from linear and branched alkyl radicals comprising from 1 to 4 carbon atoms.
27. The method of Claim 24, wherein the heterocycle formed from R₁ and R₂ and the nitrogen to which they are attached, is optionally substituted with at least one linear or branched alkyl radical comprising from 1 to 4 carbon atoms.
28. The method of Claim 1, wherein the at least one fluorescent dye is present in the composition in an amount ranging from 0.01% to 20% by weight relative to the total weight of the composition.

29. The method of Claim 28, wherein the at least one fluorescent dye is present in the composition in an amount ranging from 0.05% to 10% by weight relative to the total weight of the composition.

30. The method of Claim 29, wherein the at least one fluorescent dye is present in the composition in an amount ranging from 0.1% to 5% by weight relative to the total weight of the composition.

31. The method of Claim 1, wherein the composition further comprises at least one additional non-fluorescent direct dye chosen from nonionic, cationic and anionic non-fluorescent direct dyes.

32. The method of Claim 31, wherein the at least one additional direct dye is chosen from nitrobenzene dyes, azo dyes, anthraquinone, naphthoquinone and benzoquinone dyes, indigoid dyes and triarylmethane-based dyes.

33. The method of Claim 31, wherein the at least one additional direct dye is present in the composition in an amount ranging from 0.0005% to 12% by weight relative to the total weight of the composition.

34. The method of Claim 33, wherein the at least one additional direct dye is present in the composition in an amount ranging from 0.005% to 6% by weight relative to the total weight of the composition.

35. The method of Claim 1, wherein the composition is in the form of a lightening dyeing shampoo.

36. The method of Claim 1, wherein the composition comprises at least one oxidation base chosen from para-phenylenediamines, bis(phenyl)alkylenediamines, para-aminophenols, ortho-aminophenols and heterocyclic bases, and the addition salts thereof with an acid or with an alkaline agent.

37. The method of Claim 36, wherein the at least one oxidation base is present in the composition in an amount ranging from 0.0005% to 12% by weight relative to the total weight of the composition.

38. The method of Claim 37, wherein the at least one oxidation base is present in the composition in an amount ranging from 0.005% to 6% by weight relative to the total weight of the composition.

39. The method of Claim 36, wherein the composition further comprises at least one coupler chosen from meta-phenylenediamines, meta-aminophenols, meta-diphenols, and heterocyclic couplers, and the addition salts thereof with an acid or with an alkaline agent.

40. The method of Claim 39 wherein the at least one coupler is present in the composition in an amount ranging from 0.0001% to 10% by weight relative to the total weight of the composition.

41. The method of Claim 40 wherein the at least one coupler is present in the composition in an amount ranging from 0.005% to 5% by weight relative to the total weight of the composition.

42. The method of Claim 1, wherein the composition further comprises at least one oxidizing agent.

43. The method of Claim 42, wherein the at least one oxidizing agent is chosen from hydrogen peroxide, urea peroxide, alkali metal bromates, persalts, and enzymes.

44. The method of Claim 43, wherein said persalts are chosen from perborate and persulphates.

45. The method of Claim 44, wherein said enzymes are chosen from peroxidases and two-electron and four-electron oxidoreductases.

46. The method of claim 43, wherein the at least one oxidizing agent is hydrogen peroxide.

47. A process for dyeing human keratin materials with a lightening effect comprising:

a) applying to keratin fibers, for a time that is sufficient to develop a desired coloration and lightening, a composition comprising, in a cosmetically acceptable medium, at least one fluorescent dye that is soluble in the medium and at least one surfactant chosen from:

amphoteric surfactants chosen from betaines and imidazolium derivatives, and nonionic surfactants chosen from alkylpyrrolidones, oxyalkylenated fatty alcohol ethers, glycerolated fatty alcohol ethers, fatty acid esters of oxyalkylenated monoalcohols, fatty acid esters of glycerolated monoalcohols, fatty acid esters of optionally oxyalkylenated polyols, and fatty acid esters of optionally glycerolated polyols;

b) optionally rinsing said keratin fibers,
c) optionally washing said fibers with shampoo and rinsing said fibers, and
d) drying or leaving to dry said fibers.

48. A process for dyeing human skin with a lightening effect comprising:

a) applying to the skin, for a time that is sufficient to develop a desired coloration and lightening, a composition comprising, in a cosmetically acceptable medium, at least one fluorescent dye that is soluble in the medium; and at least one surfactant chosen from:

- amphoteric surfactants chosen from betaines and imidazolium derivatives, and
- nonionic surfactants chosen from alkylpyrrolidones, oxyalkylenated fatty alcohol

ethers, glycerolated fatty alcohol ethers, fatty acid esters of oxyalkylenated monoalcohols, fatty acid esters of glycerolated monoalcohols, fatty acid esters of optionally oxyalkylenated polyols, and fatty acid esters of optionally glycerolated polyols, and

b) drying or leaving to dry said skin.

49. A composition, comprising, in a cosmetically acceptable medium:

at least one fluorescent dye that is soluble in the medium, wherein the at least one fluorescent dye does not comprise three fused rings, wherein one of said rings is a monocationic heterocycle comprising two nitrogen atoms; and wherein the at least one fluorescent dye is not 2-[2-(4-dialkylamino)phenylethenyl]-1-alkylpyridinium, wherein the alkyl radical of the pyridinium nucleus is chosen from methyl and ethyl radicals, and that of the benzene nucleus is chosen from methyl radicals, and wherein the counterion is a halide; and

at least one surfactant chosen from:

amphoteric surfactants chosen from betaines and imidazolium derivatives, and nonionic surfactants chosen from alkylpyrrolidones, oxyalkylenated fatty alcohol ethers, glycerolated fatty alcohol ethers, fatty acid esters of oxyalkylenated monoalcohols, fatty acid esters of glycerolated monoalcohols, fatty acid esters of optionally oxyalkylenated polyols, and fatty acid esters of optionally glycerolated polyols.

50. The composition of Claim 49, wherein the at least one fluorescent dye is soluble in the cosmetically acceptable medium of the composition to a concentration of at least 0.001 g/l, at a temperature ranging from 15 to 25°C.

51. The composition of Claim 50, wherein the at least one fluorescent dye is soluble in the cosmetically acceptable medium to a concentration of at least 0.5 g/l, at a temperature ranging from 15 to 25°C.

52. The composition of Claim 51, wherein the at least one fluorescent dye is soluble in the cosmetically acceptable medium to a concentration of at least 1 g/l, at a temperature ranging from 15 to 25°C.

53. The composition of Claim 52, wherein the at least one fluorescent dye is soluble in the cosmetically acceptable medium to a concentration of at least 5 g/l, at a temperature ranging from 15 to 25°C.

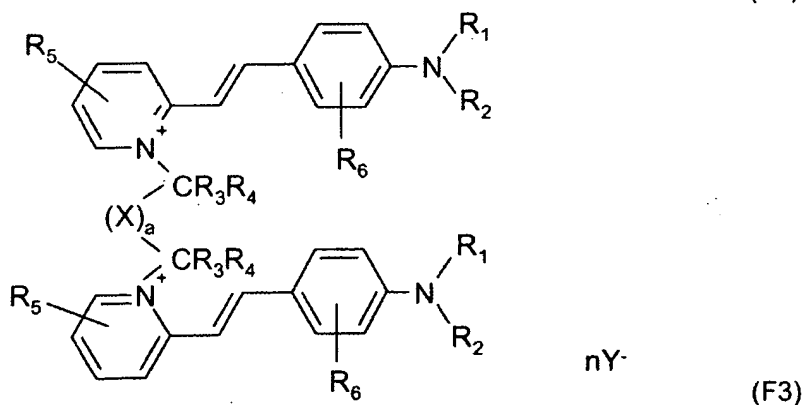
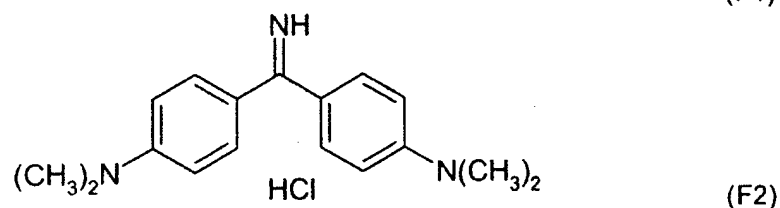
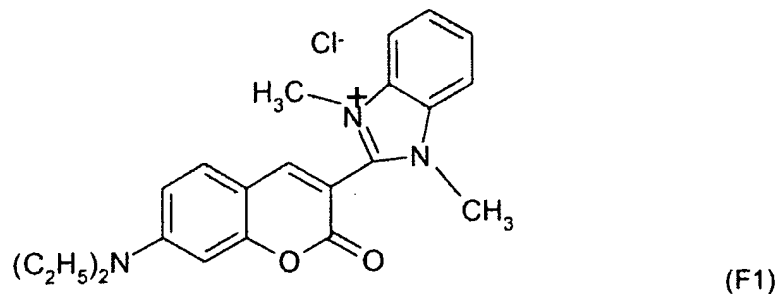
54. The composition of Claim 49, wherein the at least one fluorescent dye is a dye in the orange range.

55. The composition of Claim 49, wherein the at least one fluorescent dye provides a reflectance maximum that is in the wavelength range from 500 to 650 nanometers.

56. The composition of Claim 55, wherein the at least one fluorescent dye provides a reflectance maximum that is in the wavelength range from 550 to 620 nanometers.

57. The composition of Claim 49, wherein the at least one fluorescent dye is chosen from: naphthalimides; cationic coumarins; non-cationic coumarins; xanthenodiquinolizines; azaxanthenes; naphtholactams; azlactones; oxazines; thiazines; dioxazines; and azo, azomethine, and methine polycationic fluorescent dyes.

58. The composition of Claim 49, wherein the at least one fluorescent dye is chosen from groups formed by dyes comprising the following structures:



wherein:

R_1 and R_2 , which may be identical or different, are chosen from:

- a hydrogen atom;
- linear and branched alkyl radicals comprising 1 to 10 carbon atoms, optionally interrupted and/or substituted with at least one entity chosen from hetero atoms and groups comprising at least one hetero atom and optionally substituted with at least one halogen atom;
- aryl and arylalkyl radicals, wherein the aryl group comprises 6 carbon atoms and the alkyl group comprises from 1 to 4 carbon atoms; and wherein the aryl group is optionally substituted with at least one alkyl radical chosen from linear and branched alkyl radicals comprising from 1 to 4 carbon atoms,

wherein the at least one alkyl radical is optionally interrupted and/or substituted with at least one entity chosen from hetero atoms and groups comprising at least one hetero atom and is optionally substituted with at least one halogen atom;

- R_1 and R_2 may optionally form, together with the nitrogen atom to which they are attached, at least one heterocycle and may comprise at least one other hetero atom, wherein the heterocycle is optionally substituted with at least one alkyl radical chosen from linear and branched alkyl radicals, wherein the at least one alkyl radical is optionally interrupted and/or substituted with at least one entity chosen from hetero atoms and groups comprising at least one hetero atom and is optionally substituted with at least one halogen atom; and
- R_1 or R_2 may optionally form, together with the nitrogen to which they are attached and one of the carbon atoms of the phenyl group bearing the nitrogen atom, at least one heterocycle;

- R_3 and R_4 , which may be identical or different, are each chosen from a hydrogen atom and alkyl radicals comprising from 1 to 4 carbon atoms;

- R_5 , which may be identical or different, is chosen from a hydrogen atom, a halogen atom and linear and branched alkyl radicals comprising from 1 to 4 carbon atoms, optionally interrupted with at least one hetero atom;

- R_6 , which may be identical or different, is chosen from a hydrogen atom; a halogen atom; linear and branched alkyl radicals comprising from 1 to 4 carbon atoms, wherein the alkyl radicals are optionally substituted and/or interrupted with at least one entity chosen from hetero atoms and groups bearing at least one hetero atom and are optionally substituted with at least one halogen atom;

- X is chosen from:

- linear and branched alkyl radicals comprising from 1 to 14 carbon atoms and alkenyl radicals comprising from 2 to 14 carbon atoms, wherein the alkyl radicals and alkenyl radicals are optionally interrupted and/or substituted with at least one entity chosen from hetero atoms and groups comprising at least one hetero atom and are optionally substituted with at least one halogen atom;
- 5- or 6-membered heterocyclic radicals optionally substituted with at least one of:
 - linear and branched alkyl radicals comprising from 1 to 14 carbon atoms, wherein the at least one alkyl radicals are optionally substituted with at least one entity chosen from hetero atoms;
 - linear and branched aminoalkyl radicals comprising from 1 to 4 carbon atoms, optionally substituted with at least one hetero atom; and
 - halogen atoms;
- fused and non-fused aromatic and diaromatic radicals, optionally separated with an alkyl radical comprising from 1 to 4 carbon atoms, wherein the aromatic and diaromatic radicals are optionally substituted with at least one entity chosen from halogen atoms and alkyl radicals comprising from 1 to 10 carbon atoms, said alkyl radicals being optionally substituted and/or interrupted with at least one entity chosen from hetero atoms and groups bearing at least one hetero atom;
- a dicarbonyl radical; and
- the group X possibly bearing at least one cationic charges;

- a being equal to 0 or 1;
 - Y⁻, which may be identical or different, is chosen from organic and mineral anions; and
- n is an integer at least equal to 2 and at most equal to the number of cationic charges present in the at least one fluorescent compound.

59. The composition of Claim 58, wherein R₁ and R₂, which may be identical or different, are each chosen from linear and branched alkyl radicals comprising from 1 to 4 carbon atoms.

60. The composition of Claim 58, wherein the heterocycle formed from R₁ and R₂ and the nitrogen to which they are attached, is optionally substituted with at least one linear or branched alkyl radical comprising from 1 to 4 carbon atoms.

61. The composition of Claim 49, wherein the amphoteric surfactants are chosen from betaines chosen from (C₈-C₂₀)alkylbetaines, (C₈-C₂₀)alkylamido(C₁-C₈)alkylbetaines, (C₈-C₂₀)alkylamido(C₁-C₈)alkylsulphobetaines and sulphobetaines.

62. The composition of Claim 49, wherein the imidazolium derivatives are chosen from amphocarboxyglycinates and amphocarboxypropionates.

63. The composition of Claim 49, wherein the nonionic alkylpyrrolidones are chosen from (C₁-C₃₀)alkylpyrrolidones.

64. The composition of Claim 49, wherein the oxyalkylenated or glycerolated fatty alcohol ethers are chosen from linear and branched, saturated and unsaturated, ethoxylated and/or propoxylated or glycerolated, optionally hydroxylated fatty alcohols comprising a chain comprising from 8 to 30 carbon atoms.

65. The composition of Claim 49, wherein the fatty acid esters of oxyalkylenated and of glycerolated monoalcohols are chosen from esters of linear and branched, saturated and unsaturated carboxylic acids with a fatty chain comprising from 8 to 30 carbon atoms,

and from at least one ester chosen from esters of linear and branched, saturated and unsaturated, ethoxylated, propoxylated and glycerolated monoalcohols with a fatty chain comprising from 8 to 30 carbon atoms.

66. The composition of Claim 49, wherein the polyols are chosen from at least one of glycerol, sorbitol, glucose, methylglucose, sorbitol anhydride, polyethylene glycol and polypropylene glycol.

67. The composition of Claim 49, wherein the at least one surfactant is present in an amount ranging from 0.01% to 30% by weight relative to the total weight of the composition.

68. The composition of Claim 67, wherein the at least one surfactant is present in an amount ranging from 0.1% to 20% by weight relative to the total weight of the composition.

69. The composition of Claim 68, wherein the at least one surfactant is present in an amount ranging from 0.2% to 10% by weight relative to the total weight of the composition.

70. The composition of Claim 49, wherein the at least one fluorescent dye is present in an amount ranging from 0.01% to 20% by weight relative to the total weight of the composition.

71. The composition of Claim 70, wherein the at least one fluorescent dye is present in an amount ranging from 0.05% to 10% by weight relative to the total weight of the composition.

72. The composition of Claim 71, wherein the at least one fluorescent dye is present in an amount ranging from 0.1% to 5% by weight relative to the total weight of the composition.

73. The composition of Claim 49, further comprising at least one additional non-fluorescent direct dye chosen from nonionic, cationic, and anionic non-fluorescent direct dyes.

74. The composition of Claim 73, wherein the at least one additional direct dye is chosen from nitrobenzene dyes, azo dyes, anthraquinone dyes, naphthoquinone dyes, benzoquinone dyes, phenothiazine dyes, indigoid dyes, xanthene dyes, phenanthridine dyes, phthalocyanin dyes, and triarylmethane-based dyes.

75. The composition of Claim 73, wherein the at least one additional direct dye is present in an amount ranging from 0.0005% to 12% by weight relative to the total weight of the composition.

76. The composition of Claim 75, wherein the at least one additional direct dye is present in an amount ranging from 0.005% to 6% by weight relative to the total weight of the composition.

77. The composition of Claim 49, wherein said composition is in the form of a lightening dyeing shampoo.

78. The composition of Claim 49, further comprising at least one oxidation base chosen from para-phenylenediamines, bis(phenyl)alkylenediamines, para-aminophenols, ortho-aminophenols and heterocyclic bases, and the addition salts thereof with an acid or with an alkaline agent.

79. The composition of Claim 78, wherein the at least one oxidation base is present in an amount ranging from 0.0005% to 12% by weight relative to the total weight of the composition.

80. The composition of Claim 79, wherein the at least one oxidation base is present in an amount ranging from 0.005% to 6% by weight relative to the total weight of the composition.

81. The composition of Claim 78, further comprising at least one coupler chosen from meta-phenylenediamines, meta-aminophenols, meta-diphenols, heterocyclic couplers, and the addition salts thereof with an acid or with an alkaline agent.

82. The composition of Claim 81, wherein the at least one coupler is present in an amount ranging from 0.0001% to 10% by weight relative to the total weight of the dye composition.

83. The composition of Claim 82, wherein the at least one coupler is present in an amount ranging from 0.005% to 5% by weight relative to the total weight of the dye composition.

84. The composition of Claim 49, further comprising at least one oxidizing agent.

85. The composition of Claim 84, wherein the at least one oxidizing agent is chosen from hydrogen peroxide, urea peroxide, alkali metal bromates, persalts, and enzymes.

86. The composition of Claim 85, wherein the persalts are chosen from perborates and persulphates.

87. The composition of Claim 85, wherein the enzymes are chosen from peroxidases and two-electron and four-electron oxidoreductases.

88. A process for dyeing human keratin fibers with a lightening effect, comprising:
a) applying to said human keratin fibers for a time that is sufficient to develop a desired coloration and lightening, a composition, comprising, in a cosmetically acceptable medium:

at least one fluorescent dye that is soluble in the medium; wherein the at least one fluorescent dye does not comprise three fused rings, wherein one of said rings is a monocationic heterocycle comprising two nitrogen atoms; and further wherein the at least one fluorescent dye is not 2-[2-(4-dialkylamino)phenylethenyl]-1-alkylpyridinium, wherein the alkyl radical of the pyridinium nucleus is chosen from methyl and ethyl radicals, and that of the benzene nucleus is chosen from methyl radicals, and wherein the counterion is a halide; and

at least one surfactant chosen from:

amphoteric surfactants chosen from betaines and imidazolium derivatives, and nonionic surfactants chosen from alkylpyrrolidones, oxyalkylenated fatty alcohol ethers, glycerolated fatty alcohol ethers, fatty acid esters of oxyalkylenated monoalcohols, fatty acid esters of glycerolated monoalcohols, fatty acid esters of optionally oxyalkylenated polyols, and fatty acid esters of optionally glycerolated polyols,

- b) optionally rinsing the human keratin fibers,
- c) optionally washing the human keratin fibers with shampoo and rinsing the human keratin fibers, and
- d) drying the human keratin fibers or leaving the human keratin fibers to dry.

89. A process for dyeing human keratin fibers with a lightening effect, comprising:

a) separately storing

(1) a composition comprising, in a cosmetically acceptable medium:

at least one fluorescent dye that is soluble in the medium, wherein the at least one fluorescent dye does not comprise three fused rings, wherein one of said rings is a monocationic heterocycle comprising two nitrogen atoms; and further wherein the at least one fluorescent dye is not 2-[2-(4-dialkylamino)phenylethenyl]-1-alkylpyridinium, wherein

the alkyl radical of the pyridinium nucleus is chosen from methyl and ethyl radicals, and that of the benzene nucleus is chosen from methyl radicals, and wherein the counterion is a halide,

at least one surfactant chosen from
amphoteric surfactants chosen from betaines and imidazolium derivatives, and
nonionic surfactants chosen from alkylpyrrolidones, oxyalkylenated fatty alcohol ethers, glycerolated fatty alcohol ethers, fatty acid esters of oxyalkylenated monoalcohols, fatty acid esters of glycerolated monoalcohols, fatty acid esters of optionally oxyalkylenated polyols, and fatty acid esters of optionally glycerolated polyols
optionally at least one additional direct dye, and
optionally at least one oxidation base optionally combined with at least one coupler;
and

(2) a composition comprising, in a cosmetically acceptable medium, at least one oxidizing agent; and

- b) mixing the separately stored compositions together at the time of use,
- c) applying the mixture to said human keratin fibers for a time that is sufficient to develop a desired coloration and lightening,
- d) optionally rinsing the human keratin fibers,
- e) optionally washing the human keratin fibers with shampoo and rinsing the human keratin fibers, and
- f) drying the human keratin fibers or leaving the human keratin fibers to dry.

90. The process according to Claim 88, wherein the human keratin fibers are artificially dyed or pigmented.

91. A process for coloring dark skin with a lightening effect, comprising:

(a) applying to the skin a composition, comprising, in a cosmetically acceptable medium:

at least one fluorescent dye that is soluble in the medium, wherein the at least one fluorescent dye does not comprise three fused rings, wherein one of said rings is a monocationic heterocycle comprising two nitrogen atoms; and further wherein the at least one fluorescent dye is not 2-[2-(4-dialkylamino)phenylethenyl]-1-alkylpyridinium, wherein the alkyl radical of the pyridinium nucleus is chosen from methyl and ethyl radicals, and that of the benzene nucleus is chosen from methyl radicals, and wherein the counterion is a halide, and

at least one surfactant chosen from:

amphoteric surfactants chosen from betaines and imidazolium derivatives, and nonionic surfactants chosen from alkylpyrrolidones, oxyalkylenated fatty alcohol ethers, glycerolated fatty alcohol ethers, fatty acid esters of oxyalkylenated monoalcohols, fatty acid esters of glycerolated monoalcohols, fatty acid esters of optionally oxyalkylenated polyols, and fatty acid esters of optionally glycerolated polyols

(b) drying the skin or leaving the skin to dry.

92. A multi-compartment device for dyeing and lightening the hair, comprising:

at least one compartment comprising a composition, comprising, in a cosmetically acceptable medium:

at least one fluorescent dye that is soluble in the medium, wherein the at least one fluorescent dye does not comprise three fused rings, wherein one of said rings is a monocationic heterocycle comprising two nitrogen atoms; and further wherein the at least one fluorescent dye is not 2-[2-(4-dialkylamino)phenylethenyl]-1-alkylpyridinium, wherein the alkyl radical of the pyridinium nucleus is chosen from methyl and ethyl radicals, and that

of the benzene nucleus is chosen from methyl radicals, and wherein the counterion is a halide,

at least one surfactant chosen from:

amphoteric surfactants chosen from betaines and imidazolium derivatives, and nonionic surfactants chosen from alkylpyrrolidones, oxyalkylenated fatty alcohol ethers, glycerolated fatty alcohol ethers, fatty acid esters of oxyalkylenated monoalcohols, fatty acid esters of glycerolated monoalcohols, fatty acid esters of optionally oxyalkylenated polyols, and fatty acid esters of optionally glycerolated polyols,

optionally at least one additional direct dye, and

optionally at least one oxidation base optionally combined with at least one coupler;

and at least one other compartment comprising a composition comprising at least one oxidizing agent.